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DEPARTMENT OF NATURAL RESOURCES

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March 31, 2010

Rick Havenstrite
Desert Hawk Gold Corporation
8921 North Indian Trail Road, Suite 288
Spokane, Washington 99208

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Desert Hawk Gold Corporation, Cactus Mill, M/045/0049, Tooele County, Utah

Dear Mr. Havenstrite:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the Cactus Mill, which was received March 03, 2009. The attached comments will need to be addressed before tentative approval may be granted.

Please address those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text as you have done in the past. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Leslie Heppler, at 801-538-5257. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB:lah:vs

Attachment: Review

cc: Larry_Garahana@BLM.gov
Stephen_Allen@BLM.gov
Wstokes@utah.gov
wwcampbell@utah.gov

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**Second REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Desert Hawk Gold Corporation
Cactus Mill
M/045/0049
March 31, 2010**

General Comments:

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	General	Submittal should be formatted to easily incorporate additional revisions and amendments.	lah	
2	General	Based on the responses received, the Division might have additional comments. Surety is to be upgraded.	lah	
3	General	The form used for this submittal is a guide developed by the Division to assist operators in preparing large mine notices. Much of the text in the form consists of instructions to the operator and is not needed for the plan. In many cases, it becomes difficult to distinguish between the mine plan and instructions in the form. Please remove those portions that are not part of the mining and reclamation plan.	pbb	
4	General	Additional comments from the Division might be generated in the final review based on receiving the completed final NOI. A cover to cover review will need to be done on the final plan before it is stamped approved.	lah	
5	List of figures	Update the list of figures to match what is in the NOI.	lah	
6	General	Include in the Table of Content the list of Appendixes, including the name.	lah	

R647-4-105 - Maps, Drawings & Photographs

105.1 - Topographic base map, boundaries, pre-act disturbance

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	Figure 1	Please include the mine ID number of the Yellow Hammer Mine permit to make it clear the Yellow Hammer mine is not part of this operation.	lah	
8	Figure 1	Please commit to cooperating with Tooele County to resolve offsite issues, such as road dust, traffic control, public safety, etc.	lah	
9	Page 4 (c)	Show road access for the clay pit, including the location of the road, possible culvert. Include the road in the bond calculations.	lah	
10	Page 4 (e)	Figure 6 does not show all the areas proposed to be disturbed over the life of the project. This section needs to include reclamation of the Cactus Mill site, i.e. include Figure 7.	lah	

105.2 - Surface facilities map

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
11	, Page 6, Figures 1, 4, 5, and 6	Page 2 of the NOI has a note that certain features are not within the permit area, but the verbiage under item b on page 6 in the base map checklist leads one to believe these features are shown on some of the maps. Assuming these features are not present, please make appropriate modifications to page 6 eliminating mention of landing strips, oil and gas pipelines, etc.	lah	

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
12	All Figures which the comment applies to	Show topsoil areas (growth medium) from which growth medium will be salvaged. Also show the location of drainage control structures. Draw the location on the figures where the topsoil will be stockpiled. Include locations of drainage control structures on the figures. Permit boundary will need to be adjusted to include all ground disturbance, including the drainage control structures.	lah	
13	Page 4 (a)	Are there going be any water supply tanks?	lah	
14	Page 5 (b)	Please show the acreage of the clay mine on the map of this area.	lah	
15	Omission	All buildings and lay-down yard equipment and parts need to be accounted for in the surety calculations. As per yellow notes in comment table, when can the division receive the surety calculations?	lah	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
16	X-sections all	Label cross sections with maximum and minimum slope angles	lah	
17	Omission	Include a geologic map with legend. Include the map in the Table of Contents with page number, and reference the map in the text.	lah	
18	Omission	Cross sections are needed for the Cactus mill site. Include current topography, topography during mining, and final reclamation topography. Include a long-section that parallels the direction of the leach pad drainage and several x-sections perpendicular to the long section	lah	
19	Figure 7 & Page 5 (b)	Include number of acres on figure 7.	lah	
20	Figure 7A and Item c under Section 105.3 on Page 5)	Figure 7A shows a variance area, but the variance requests have been removed from the plan. Please make appropriate modifications to Figure 7A and any text that references a variance. It may be best to eliminate Figure 7A altogether.,	lah	
21	Figures 7 and 7A	Figure 7, the reclamation treatments map, shows the new and old mills which implies these buildings will remain following reclamation. For now, the plan is that they will be removed and that the plan can be amended at some point in the future to allow these buildings to stay. Please remove these buildings from the reclamation maps.	lah	

R647-4-106 - Operation Plan

106.2 - Type of operations conducted, mining method, processing etc.

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
22	Page 6 Para 1	The Herat permit has no bond, and is listed as inactive. Modify the Permit to reflect the actual location of the source of the ore to be leached. Include the permit number of the ore source.	lah	
23	Page 6 para 3	Show the location of the rip-rapped HDPE berm on the map, give the dimensions of the berm, and include in surety calculations.	lah	
24	Page 6 Para 3	Commit in the NOI to a water monitoring plan that will comply with the DEQ.	lah	

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
25	Omission	Include crushing facilities. All equipment and supplies on site will need to be bonded and included in the surety (tanks, generators, pumps, chemicals, water lines, pipelines, etc).	lah whw	
26	Page 7 Para 8	As written "...will be disturbed After the required amounts of clay are removed the area will be recontoured, if necessary & growth medium..." Please reword such as "An area of approximately 1 acre will be disturbed. The area will be regraded, ripped, and seeded. Growth medium will be added if necessary."	lah	

106.3 - Estimated acreages disturbed, reclaimed, annually

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
27	Page 8 Para 1	Add the acreage of the clay pit access road and modify the total acreage to reflect the change.	lah	
28	Page 8	Refer to figure number in text and note on the figure the acreage for each. The acres will tie into the surety sheet. The NOI should not include the words "should match." Does the acreage figure for "actual mining" include the site from which clay will be extracted?	lah	

106.4 - Nature of materials mined, waste and estimated tonnages

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
29	Page 7	What is the "time estimate" that is needed for rinsing? Include the range of pH that will be achieved when rinsing into the verbiage of the NOI as is written in the draft comments highlighted in yellow. Include in all parts of the permit where this paragraph is used.	lah	
30	Page 8	Comment from previous review: Prior to removing 'leached' material from the pad, you will need to contact both DEQ and DOGM and provide copies of monitoring data and receive approval to move the material to a disposal area. Where will the 'spent ore' be disposed of? This area will also need to be permitted. New comment: In addressing this comment, it is stated the material will not leave the pad. Yet, on page 16 the plan indicates this material will be used to backfill the evaporation pond. Which is the correct plan?	Lk	

106.5 - Existing soil types, location, amount

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
31	Page 9	<p>Comment from previous review: While the Division will not argue that the area (soils) have been disturbed in the past, the fact is that there are suitable soil material (as evidenced by the current vegetation establishment) that is suitable for plant growth, and as such needs to be characterized and salvaged for reclamation. (Even an inch or two of topsoil can make a great difference in revegetation success). Also, the clay mining area is considered part of this operation, and as such you need to provide soil information and plans for that area as well. The following data is needed for each soil type (and the disturbed soils that could be used as a substitute plant growth medium): Texture, pH, EC(conductivity), SAR (sodium absorption), CEC (cation exchange capacity), Percent Organic Matter, Total Nitrogen, Nitrate Nitrogen, Phosphorus (as P₂O₅), and Potassium (as K₂O)</p> <p>The volume of each soil material that can be stockpiled for reclamation is also needed as well as the location of each soil stockpile needs to be shown on a map. Note, there is a statement on page 11 that states that all suitable soil material will be salvaged.</p> <p>New comments: The plan now indicates only 100-200 cy of soil is available (the reclamation cost estimate indicates 1000 cy). From comments made to the Division, there is in excess of 6100 cy of soil material. Assuming a minimum of 6 inches of soil can be salvaged, there should be in excess of 7,660 cy of soil available. As stated previously, just because there is past disturbance does not automatically make the soil unsuitable or unavailable for reclamation. An accurate soil resource inventory needs to be provided. The Division reserves the right to make additional comments regarding soils after the results of the soil analyses are submitted and reviewed.</p>	lk	

106.6 - Plan for protecting & re-depositing soils

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
32	Omission	<p>Comment from previous review: Please provide plans for protecting the soil resources and describe how they will be re-deposited, including depth of replacement and the need for any amendments and/or fertilizer.</p> <p>New comments: Pending review of yet to be submitted soil analysis, please plan to amend soils with 10 ton/acre of composted manure or biosolids.</p>	lk	

106.7 - Existing vegetation - species and amount

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
33	Page 9 omission	<p>Comment from previous review: Based on photos provided, there appears to be a significant amount of vegetation on the mill site. Please provide the results of a vegetation survey as required. You will also need to provide the same for the clay mining area. Data needed includes a list of species present and the percent ground cover of vegetation. If different vegetation types exist, then this data needs to be provided for each vegetation type.</p> <p>New comments: While the response does mention 10% vegetation cover, again from the photos provided it appears that there is significantly more. Common/dominant species are not identified. There is still no data for the clay mining area. Please consider retaining a qualified biologist to collect necessary vegetation data.</p>	lk	

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
34	Omission	Include the geology of the clay pit, and short description in the text.	Lah	

106.9 - Location & size of ore, waste, tailings, ponds

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
35	Page 11 Para 2	Clarify the leach pad size. The text indicates it is 3.7 acres, as per map scale the pad size that is drawn is less than 3.7 acres. Does the acreage figure include evaporation pond, if so change the text. Text and drawings need to be consistent.	Lah	
36	Page 11 Para 4	Paragraph 2 on page 11 indicates 200,000 tons of ore will be leached, yet paragraph 4 indicates calculations, including the amount of lime needed, are done based on 100,000 tons of ore. Text and drawings need to be consistent. The BLM is to verify rinsing costs for 3 years.	Lah	

R647-4-107 – Operation Practices

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
37	Page 11 Final paragraph	No storm water permit has been included.	lah	
38	Page 12 Para 1	Commit to a storm water event size rather than a sediment pond size.	lah	
39	Page 12 Para 2	Commit to water quality program as required by DEQ, which will include monitor well locations, monitoring schedule, and reporting requirements.	lah	
40	Page 12 Para 4	Modify redline text regarding islands of soils to match comments by LK	lah	

R647-4-108 - Hole Plugging Requirements

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
41	Page 13 Para 1	Plugging of the monitoring wells needs to be included in the surety calculations.	pbb	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
42	Page 13	Include in the permit the location the test sample were taken from.	lah	
43		<p>Comment from previous review (unchanged): The permit merely mentions a 2 x 2 foot berm as protection for the facilities area. The Division needs the appropriate watershed area calculations to verify that all water conveyances are designed to have adequate capacity, to be stable over the range of flows under which they will be expected to function, and to have adequate energy dissipation. Regardless of the design used, no hydrologic designs were included in the notice. A certain level of probability exists that the design condition will be exceeded. Determining the acceptable risk of failure becomes a large part of the design. Since this plan is dealing with hazardous sulfuric acid leach chemicals and by products of this leach process and leach facilities, the Division is asking that all diversions and ponds be designed to handle the 100-year, 24-hour event. This will require that watershed maps be generated, peak flows calculated, these flows routed through the bypass ditches and the surge pond be designed to handle runoff and process water.</p> <p>New comment: No stormwater plan was included in the March 3, 2010, submittal.</p>	TM	
44		<p>Comment from previous review: The plan states that two monitoring wells will be put in at the site but does not provide any details regarding their installation related to geology or hydrology. Please provide this design information.</p> <p>New comment: The new locations shown on figure 5 appear to be up gradient of the site. The new submittal has not addressed any details regarding their installation related to geology or hydrology.</p>	TM	

109.3 - Impacts on existing soils resources

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
45	Omission	<p>Comment from previous review: DOGM realizes that most of the soils at the mill area have been previously disturbed. However, this past disturbance does not necessarily make them unsuitable for reclamation. The requested analysis will be key in determining the extent of impact and suitability of the material (reasonable amendments and/or fertilizers may be required to make the existing disturbed soils suitable).</p> <p>New comment: Additional comments may be made after the results of the soil analysis are submitted.</p> <p>Comment from previous review: There is no discussion regarding impacts on the soil resources associated with the clay mining area. This needs to be provided.</p> <p>New comment: This comment was not addressed with this submission.</p>	lk	

109.5 - Actions to mitigate any impacts

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
46	Omission	Comment from previous review: Nothing is written in the text regarding actions to mitigate impacts. Include a place holder in Appendix for other agencies' letters and approvals, including all that apply, such as DEQ, SHPO, or any county requirements. New comment: <u>As per comment # 8 include an Appendix with placeholders for other agencies documentation.</u>	lah	
47	Omission	Comment from previous review: Adding soil amendments may be appropriate mitigation to mitigate past and future impacts to the soil resources. Identify proposed amendments based on soil analysis. New comment: The NOI does not have any discussion/comments regarding mitigation actions for impacts to the soil resources. This needs to be provided.	lk	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
48	Page 15 para 6	The plan notes "Testing will be performed to ascertain whether the materials on the pads will support vegetation." Testing needs to be done on the material prior to stacking the leach pad and a process developed for the capping (and the revegetation) of the leach pad after mining has been completed. This function should be done on a small scale during operations, perhaps in a lab or greenhouse. Comment from previous review: Existing soil resources need to be salvaged prior to development of the pad. These materials should then be re-applied and amended as appropriate to support vegetation establishment. New comment: The NOI states that materials will not be tested until after operations. This is not acceptable. Soil resources may be significantly impacted rendering them unsuitable. These materials need to be tested, appropriate amounts salvaged and stockpiled for reclamation. The original NOI indicates 6100 CY of soil is available to salvage at the mill area. Again, plans to salvage only 100-200 CY are not acceptable.	lah lk	
49	Page 16 para 3	Previously in the NOI it states that leached materials will not be removed. Here, it states that leached materials will be used to backfill the evaporation pond. Please reconcile this conflict. Note, if the leached materials are removed from the pad, testing will be required prior to removal to demonstrate that the material is neutral. Please provide an appropriate list of analyses that will be done and the maximum levels that will be allowed. Also, will the pond residue (after evaporation) be cleaned out/removed or neutralized prior to perforating the lining and filling in the pond?	lk	
50	Page 16 para 5	Assuming the facilities listed here need rinsing, where will the rinsing take place? How will the rinse water be treated/neutralized? On page 17 it states water will be evaporated; how will the residue be treated/disposed of?	lk	
51	Page 15, 16, 17	Each place that the neutral pH is noted in the text, include the range of pH that would be allowed. It is unclear why the paragraph about cost of leach is included twice in the section (on the top of page 16 and the bottom of page 17). It is the recommendation of the Division that 3 pages are rewritten, in the chronological order of the process engineering.	lah	

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
52	Page 14 Para 8	Comment from previous review: Please plan to remove/reclaim all structures. If, at the end of mining (during reclamation), it can be demonstrated that certain structures are needed for an alternative, non-mining use, you may submit an amendment to change the land use and leave those structures at that time. Until that time, you will need to bond for the removal of all structures. New comments: Structure removal/reclamation is not included on the reclamation cost estimate. Demolition costs are to be included for each structure and not as one lump sum unit.	lk lah	
53	Page 15 Para 2	To what depth will plant growth material be replaced in the clay pit? Will amendments/fertilizer be used? Will clay be removed from this area at one time only so that reclamation can be performed shortly thereafter, or will there be a continual need for the clay during operations so that the area will need to be left 'open' until the end of this operation?	lk	
54	Page 15 para 8	Riprap has been added in the text, but it is not shown in the figures. (Include design calculations for the riprap based on hydraulic design of the basin.)	lah	

110.3 - Description of facilities to be left (post mining use)

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
55	Page 16	Address each building on the surety sheet. Note on surety as separate line items. Refer to a map. Modify Figure 7, as 2 building are shown to be left post mining. Text and figures are to match. Include removal of trailers on surety sheet.	lah lk	

110.5 - Revegetation planting program

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
56	Page 18 para 6	Provide the depth to which growth medium will be replaced. What amendments will be used, and at what rate? The NOI states that 6 inches of soil material will be replaced if available. It is likely that 6 inches would be available if a minimum of 6 inches was salvaged (see comments under R647-4-106.5) Photos submitted tend to indicate that there is at least 6 inches and possibly more available for salvage. Pending results of the soil analysis, plan to amend soils with a minimum of 10 ton/acre of composted manure or biosolids. Please show a minimum depth of soil replacement.	lk lah	

R647-4-112 - Variance (List all variances requested and make a finding if approving.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
57	Page 20 para 3	A portion of the last sentence has not been removed from the document.	lah	

R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
58	Appendix	There are several comments listed above on different surety items that are not included in the surety sheet. Due to the complexities of this operation the Division suggests that the new DOGM surety sheet be utilized, as you will have to migrate to the form in the future.	lah	

Other Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
59	Page 20	Final document is to be signed	lah	
60	Page 21 “?”	The Division suggests including the list of appendices in the table of contents.	lah	
61	Figure 1	“County Maintained Road” is shown to the clay pit area. Modify to show the new road that will be utilized.	lah	
62	Figure 1	Include acres numbers in the legend.	lah	
63	Figure 1	Include permit number for the Yellow Hammer in the legend.	lah	
64	All Figures	Include drainage on the southeast side of the fence boundary	lah	
65	Figure 4 & 5	Show location of storage tank at Cane springs.	lah	
66	Figure 5D	Show the location of the cross section on one of the plan view figures.	lah	
67	Figure 5D	Berm size is noted as 2’, reconcile to match text.	lah	
68	Figure 5D	Should have some sort of vertical and horizontal scale, could be max and min.	lah	
69	Figure 6	Add acres in the legend.	lah	
70	Figure 6	Add clay pit road, and add note on drainage crossing.		
71	Figure 6B & 6C	Include horizontal and vertical Scale, and label maximum angles.	lah	
72	Figure 6 C	Clay should not be mined with a vertical slope; modify drawing.	lah	
73	Figure 7	Include acres numbers in the legend. Add a total acreage number.	lah	
74	Figure 7	Show locations of cross sections on Figure 7. Include one long section and three cross sections	lah	
75	Figure 7 & 7A	Change notes to match text regarding the old and new mill, and remove the structures shown on the map.	lah	
76	Figure 7 & 7A	Move location of monitor wells as discussed in the March 25th meeting. Add a note that the location will be modified as per direction of DEQ.	lah	
77	Figure 7A	Remove the word variance in the legend.	lah	
78	Appendix 4	As noted in above comment, well/spring location should be included in map, and well/spring number should be noted in text.	lah	
79	Appendix 4	Collection time and received time is 20 minutes. Check lab reports for accuracy.	lah	
80	Appendix 5	Include in text the result of the Acid Potential Tests.	lah	
81	Appendix 8	See comment #60 listed above.	lah	
82	Appendix 8	Include clay pit information separately, as release will probably be separate.	lah	